

ABSTRACT

A power controller 5 calculates the induced voltage or rotor magnetic flux from the output voltage and the output current of a generator 3, estimates a shaft speed of the generator 3 from the phase of the induced voltage or the phase of the rotor magnetic flux, and calculate the output of a windmill 1 from the estimated value of the shaft speed and the output of the generator 3. As a result, since the output of the windmill 1 can be calculated without requiring a speed sensor for detecting the shaft speed of the generator 3, it is possible to accomplish simplification of circuits, reduction of cost, and high reliability.